



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/925,375	08/10/2001	Ryuji Kohno	501.40205X00	4453
20457	7590	05/05/2004	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-9889			NGUYEN, TRUNG Q	
			ART UNIT	PAPER NUMBER
			2829	

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/925,375

Applicant(s)

KOHNO ET AL.

Examiner

Trung Q Nguyen

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment filed on 02/03/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,6,8,11 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 17-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-2, 6, 8 11 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Kanamaru et al. (U.S. 6,531,327).

Regarding claim 1, Kanamaru et al. disclose in Figures 2, 10, 12 and 16D a plurality of beams supported or double beam supported 27 of Fig. 16D via 21 of Fig. 2 (not shown in Fig. 10), by support portions of a substrate 4 of Figs. 2 and 10, wherein probes 6 are formed on beams (portion of E shape around probe 6 of Fig. 10); and first lines via 12 of Fig. 12 to connect probes 6 of Fig. 10 to secondary electrodes 3b of Fig.

12 formed on substrate 4 and second lines via 21 of Fig. 12 to connect beams 6 of Fig. 10 to support portions, wherein first and second lines 21 of Fig. 12 are formed on beams.

Regarding claim 2, Kanamaru et al. disclose in Figures 2 and 10 a plurality of double-supported beam (see Fig. 2) by support portions of a substrate 4 of Figs. 2 and 10, wherein probes 6 are formed on beams (portion of E shape around probe 6 of Fig. 10); and lines 7 and 21 of Fig. 2 to connect probes 6 of Figs. 2 and 10 to secondary electrodes 3b of Fig. 2 and 10 formed on substrate, wherein line is formed on one of double-support beams 7 and 21 of Fig. 2 and extends from both sides of one of probes 6 on a face of beam where probe is formed (see Fig. 2).

Regarding claim 6, Kanamaru et al. disclose in Figure 2 a plurality of double-supported beam (see Fig. 2) by support portions of a silicon substrate 4; probes 6 that are projection 10 (column 5, lines 1-3) are formed on beams (portion of E shape around probe 6 of Fig. 10); and wiring lines 7 of Fig. 2 to connect probes 6 of Figs. 2 and 10 to secondary electrodes 3b of Fig. 2 and 10 formed on substrate, wherein line is formed on one of double-support beams 7 of Fig. 2 and extends from both sides of one of probes 6 on a face of beam where probe is formed (see Fig. 2).

Regarding claim 8, Kanamaru et al. disclose in column 6, lines 10-15 a probe formed on one of beams is distanced from and adjacent probe formed on an adjacent beam by 100micro meter or less.

Regarding claims 11 and 14, Kanamaru et al. disclose in column 2, lines 23-29, an initial defect accelerated selection test process and a final performance test process obtained by cutting a wafer (by means cutting of wasting a wafer); the test process is executed by the apparatus that Kanamaru et al. disclose in Figure 2 a plurality of double-supported beam (see Fig. 2) by support portions of a silicon substrate 4; probes 6 that are projection 10 (column 5, lines 1-3) are formed on beams (portion of E shape around probe 6 of Fig. 10); and wiring lines 7 of Fig. 2 to connect probes 6 of Figs. 2 and 10 to secondary electrodes 3b of Fig. 2 and 10 formed on substrate, wherein line is formed on one of double-support beams 7 of Fig. 2 and extends from both sides of one of probes 6 on a face of beam where probe is formed (see Fig. 2).

Allowable Subject Matter

3. Claims 17-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4. Applicant's arguments with respect to claims 1-14 have been considered. Some of the arguments are moot in view of the new explanations provided in the rejection for applicant's benefit. The other arguments are not persuasive.

5. The applicants argue that: Figs. 1 and 3 of Kanamaru et al. clearly relate to a cantilever probe structure. it is quite clear that the structure shown in Fig. 2 is also a cantilever probe arrangement rather than a double supported probe arrangement.

6. *The examiner respectfully disagree to the above argues because:* Kanamaru et al. disclose a plurality of cantilever via beams supported 21 of Fig. 2 (not shown in Fig. 10) wherein these cantilever can support the portions of a substrate 4 of Figs. 2 and 10.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in the Office Action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within two months of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension

Art Unit: 2829

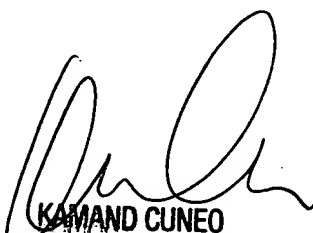
fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trung Nguyen whose telephone number is **(571)272-1966**. The examiner can normally be reached on Monday through Friday, 8:30AM – 5:00PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cuneo Kamand can be reached at **(571)272-1957**.

Trung Nguyen

Patent Examiner
Group Art Unit 2829
May 1st, 2004


KAMAND CUNEO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800